

**REMARKS**

Applicants respectfully request reconsideration in view of the amendment and following remarks. Support for amended claim 1 can be found in the specification at the middle of page 7 and page 8 second paragraph. The applicants have incorporated the features of claim 7 into claim 1. With respect to claim 8, the applicants have inserted the upper range of 84.73 from the table 1. In order to expedite prosecution, the applicants have also deleted the word “about” from claim 8. The applicants have amended claims 4, 11 and 19 as suggested by the Examiner by writing these claims with an active verb “fluorinating”. Support for amended claim 14 can be found in the second paragraph at page 8 of the specification. Support for amended claim 15 can be found in the examples. The lower limit of 0.35 is found in example 3. Support for the term “final” can be found in the description of the examples.

The applicants respectfully disagree with the restriction requirement. If independent claims 1, 8 and 16 are allowable, then dependent claims 4, 11 and 19 which further limit claims 1, 8 and 16 respectively, must also be allowable.

Claims 1-3, 7-10, 14-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 7, 8-10, 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manzer et al., U.S. Patent No. 5,243,106 (“Manzer”). Claims 1-3, 7-10 and 16-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Blanchard et al. (Applied Catalysis which is the text of Chem abs 673 cited in the last office action) (“Blanchard”). The applicants respectfully traverse these rejections.

### **112 REJECTIONS**

Claims 1-3, 7-10, 14-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 7, 8-10, 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicants believe that the claims as amended are in compliance with 35 U.S.C. 112, first and second paragraphs.

With respect to claim 8, the applicants have inserted the upper range of 84.73 from the table. Claim 16 is fully supported in the second paragraph at page 8 of the specification. Support for the phase “lower than 1% by weight” for claims 7 and 14 can be found in the second paragraph at page 8 of the specification. Again, the applicants have incorporated claim 7 into claim 1. For the above reasons, the applicants respectfully request that these rejections be withdrawn.

### **REJECTION OVER MANZER**

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manzer. In order to expedite prosecution, the applicants have incorporated the features of claim 7 into claim 1. Claim 7 was not rejected over Manzer. For the above reasons, this rejection should be withdrawn.

**REJECTION OVER BLANCHARD**

Claims 1-3, 7-10 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanchard. As the Examiner has correctly stated Blanchard teaches using a reaction temperature of 400°C. At the last paragraph of page 8 of the Office Action, the Examiner states,

Blanchard does not specifically teach lower temperatures, but does not preclude the temperature being lowered. The study is a comparison of catalysts at a given temperature and the range of products.

However, as the Examiner has correctly recognized that Blanchard is a study. There is no suggestion or teaching in the study of Blanchard to use a lower temperature of at most 280 °C as required for claim 1. The Examiner stated at page 9 of the Office Action that it would be obvious to optimize the temperature to optimize the yield. The applicants respectfully disagree. Again, there is no suggestion or teaching to use a lower temperature of at most 280 °C as required for claim 1.

As stated in the applicants' previous response, Blanchard discloses reaction temperatures between 370 °C and 400 °C. Applicants again point out that these temperatures are similar to those disclosed by Manzer, which is typical for such types of reactions, whereas the reaction temperatures required by the claimed invention are significantly lower and could not have been reasonably expected to be technically viable condition. That is, in the absence of any disclosure by the cited reference concerning much lower reaction temperatures as claimed, those of ordinary skill in the art could not have the requisite motivation to try and optimize the conditions of Blanchard by employing such lower reaction temperatures.

Applicants note that this is confirmed by the teachings at pages 125-126 of Blanchard

which show that the conversion of CFC-113 depends strongly on temperature and catalyst activity, wherein:

- with  $\text{Cr}_2\text{O}_3/\text{AlF}_3$ , a temperature of 370 °C is sufficient;
- with  $\text{AlF}_3$ , good conversion is obtained at 385 °C;
- $\text{Cr}_2\text{O}_3/\text{C}$  is used at 400°C.

Accordingly, those of ordinary skill in the art would consider a temperature change of 15 °C to be quite significant in these types of reactions concerning CFC-113. Consequently, a reaction temperature more than 100°C lower than that disclosed in Blanchard., such as in the claimed invention, could only be considered as a radical change in technology including reaction conditions, and not a mere optimization.

In fact, those of ordinary skill in the art reviewing Blanchard would recognize that with the  $\text{AlF}_3$  catalyst, a temperature of at least about 385 °C is required to obtain acceptable conversion of CFC-113. Moreover, since those of ordinary skill in the art reviewing Blanchard would understand that CFC-113 conversion decreases and CFC-113a yield and selectivity is reduced with a lowering of reaction temperature, Blanchard could only be considered to teach away from lower temperatures, as required by the claimed invention.

The temperature is very important with respect to selectivity. The last paragraph of page 11 of the applicants' specification states,

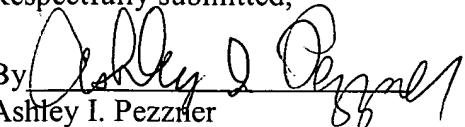
With the flow-rates of reacting gases used in the Examples, there is an optimal temperature range between 100° and 160°C. Over 160°C the selectivity decreases, even if it keeps on acceptable values...(emphasis added)

The Examiner must consider the reference as a whole, In re Yates, 211 USPQ 1149 (CCPA 1981). The Examiner cannot selectively pick and choose from the disclosed multitude of parameters without any direction as to the particular one selection of the reference without proper motivation. The mere fact that the prior art may be modified to reflect features of the claimed invention does not make modification, and hence claimed invention, obvious unless the prior art suggested the desirability of such modification is suggested by the prior art (In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); In re Baird, 29 USPQ 2d 1550 (CAFC 1994) and In re Fritch, 23 USPQ 2nd. 1780 (Fed. Cir. 1992)). In fact, in this situation, the prior art, Blanchard, does not even suggest a low temperature of 280° C or less. In re Dow Chemical Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988) (under 35 U.S.C. § 103, both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure). The applicants disagree with the Examiner why one skilled in the art with the knowledge of the reference would selectively modify Blanchard in order to arrive at the applicants' claimed invention. The Examiner's argument is clearly based on hindsight reconstruction. For the above reasons, this rejection should be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 05129-00082-US from which the undersigned is authorized to draw.

Respectfully submitted,

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